

The Influence of Household Economic Capital on High School Students' Learning Motivation: The Moderating Role of Household Social Capital

Yuyue Peng

School of Education, Hainan Normal University, Haikou, Hainan, 570100, China

ABSTRACT

Based on family capital theory and self-determination theory, this study used a sample of 319 high school students to explore the influence mechanism of family economic capital on high school students' learning motivation, focusing on the moderating role of family social capital and gender differences. The research tools used included the Family Economic Capital Scale, the Family Social Capital Scale, and the Learning Motivation Scale. Results showed that family economic capital significantly improved students' intrinsic and extrinsic motivation and reduced amotivation. Further analysis revealed that family social capital played a crucial moderating role: when family social capital levels were higher, the positive impact of economic capital on learning motivation was more pronounced, and its buffering effect on amotivation was stronger. Furthermore, gender differences were observed in some pathways; the moderating effect on intrinsic motivation was more prominent in girls, while it was more significant in the moderating pathway on amotivation in boys. This study provides new evidence for understanding how family capital structure affects learning motivation and has certain implications for family education interventions.

KEYWORDS

Family economic capital; Family social capital; Learning motivation; Self-determination theory; Gender differences

1 Introduction

In recent years, learning motivation among high school students has shown a noticeable decline, which has attracted increasing attention from educators and researchers. According to the Report on Chinese Adolescents' Learning Motivation (2021), students' learning motivation tends to decrease across high school years, with learning burnout peaking in the second year of senior high school. Learning motivation is a crucial indicator of students' academic performance, psychological well-being, and future development. Therefore, exploring the factors that influence high school students' learning motivation has important practical significance.

Meanwhile, from a policy perspective, my country has issued many documents emphasizing family education, such as the "Family Education Promotion Law" and the "Double Reduction Policy," mainly pointing out the fundamental role of the family in adolescent education, emphasizing that families should assume long-term responsibility, and that schools should actively cooperate with families to enhance parental involvement. This necessitates a shift in family education from "resource input" to "emotional companionship and support," thus providing a favorable policy background for studying how family capital influences learning motivation.

From a specific family perspective, family socioeconomic status (SES) is likely a key factor. Existing research indicates that better living conditions, educational investment, and social resources—that is, higher SES—promote students' learning interest and achievement motivation, while low SES negatively impacts children's cognitive, emotional, and behavioral development. Regarding specific family economic capital in my country (primarily income), according to data from the National Bureau of Statistics (2023): urban residents' income is approximately... The average annual disposable income for high school students is 46,000 yuan, while for rural residents it is approximately 18,000 yuan per year. This highlights the significant gap in disposable income and the substantial difference in available educational capital. Family social capital also plays a crucial role. The "Report on the Status of Family Education in China (2022)" indicates that over 70% of parents fall into the educational misconception of "accompanying without teaching" or "managing without nurturing." This lack of relationship support and parent-child interaction can further increase students' stress and significantly impact their mental health, self-efficacy, and learning motivation. Different families possess varying levels of social capital, and these disparities are widening, leading to new forms of inequality.

In conclusion, we can see that both family economic capital and family social capital have a significant impact on the learning motivation of high school students. Based on this background, this paper aims to study the influence mechanism of family economic capital and social capital on the learning motivation of high school students, taking into account potential gender differences in this process. This research contributes to a more comprehensive understanding of the formation mechanism of high school students' learning motivation and has important practical and guiding significance.

2 Literature Review

2.1 Family Economic Capital and Learning Motivation

Bourdieu defines family economic capital as the material resources a family can use for its children's education and development. Economic capital is typically measured using indicators such as family income, parents' occupation and

status, housing, and assets^[1]. It is a core dimension of family socioeconomic status (SES).

Learning motivation is an important psychological mechanism that drives individuals to participate in or maintain learning activities. International research is usually based on Self-Determination Theory (SDT), which divides motivation into intrinsic motivation, extrinsic motivation, and amotivation^[2]. Vallerand et al. developed AMS (Academic Motivation)^[3]. The scale is further subdivided into seven dimensions and is widely used for various student groups.

Regarding the relationship between the two, numerous studies have shown that higher economic capital can provide students with abundant resources and a favorable environment, having a sustained positive impact on learning opportunities and performance^[4]. Domestic research also supports this, with some scholars pointing out that economic capital has a significant cumulative effect on children's education; the higher the economic capital, the more sustained educational advantages children gain^[5]. At the same time, existing research also indicates that family socioeconomic status can enhance students' intrinsic motivation^[6], suggesting that economic capital not only affects external learning conditions but also influences students' intrinsic interest in learning and their value identification.

2.2 Family Social Capital and Learning Motivation

Family social capital refers to the quality of relationships among family members, communication frequency, emotional support, supervision methods, and educational expectations^[1,7]. Sheng Bing (2005) further supplemented the structure of social capital in the field of education from three dimensions: institutional, relational, and cognitive, providing a systematic framework for its influence mechanism^[8].

Regarding the relationship between the two, research generally points out that good family social capital can significantly enhance students' learning motivation. Wu Li and Guo Yuanxiang (2024), in a study using high school students as a sample, found that parental autonomous support can significantly enhance students' learning engagement, with intentional self-regulation and school connection playing key roles^[9]. Furthermore, family social capital not only directly affects students' learning motivation but may also modulate the path of economic capital. According to social capital theory^[1], students with good parent-child relationships, frequent communication, and sufficient family support are more likely to understand their parents' educational investment in a positive way. Therefore, even with the same economic conditions, different levels of family social capital can lead to drastically different psychological experiences of students regarding educational investment. From the perspective of self-determination theory^[2], students are more likely to develop intrinsic learning motivation when they feel supported, understood, and capable of handling learning tasks. Conversely, when social capital is low, economic resources may be perceived as pressure by students, exacerbating the learning burden and even reducing learning motivation.

2.3 Potential Influence of Gender on Learning Paths

In recent years, research on gender differences in learning motivation has gradually increased, with ample evidence provided by international literature. A study based on 500 university students showed that female students had significantly higher intrinsic motivation and classroom participation than male students, while male students had slightly higher extrinsic motivation^[11]. Nairobi's AMS study also found that female students had significantly higher academic motivation than male students^[12]. In 2023, online learning research further supplemented this finding: female students scored higher in intrinsic motivation, identity regulation, and affective regulation, while male students had higher levels of amotivation^[14]. Furthermore, research indicates that gender differences in motivation, participation, and achievement are closely related to peer attitudes^[13]. This also illustrates that when exploring the effects of family social capital, we cannot limit ourselves to family support; we should also consider a broader social network. Domestic literature also reaches a consistent conclusion. Chi Liping and Xin Ziqiang (2006) pointed out that boys score higher in the "challenge" aspect, while girls rely more on others' evaluations, indicating that gender not only affects the overall level of motivation but also the motivational structure^[15]. Combining the above research in the field of family capital, gender may bring certain differences in the moderating effect of family social capital.

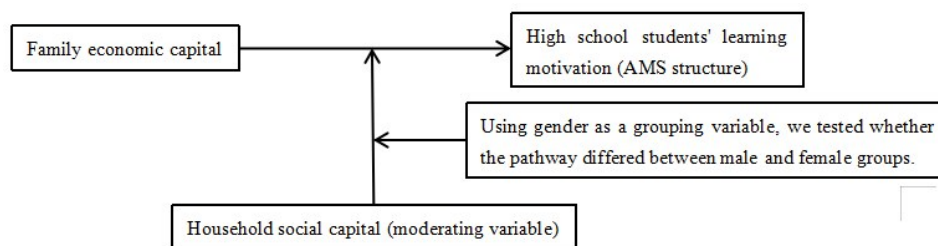


Figure 1

In summary, existing research generally affirms the important role of family economic capital and social capital in learning outcomes, but systematic empirical analysis on how they affect students' motivational system is still lacking, especially in the discussion of their interaction mechanism and gender differences. Furthermore, most existing research

focuses on university students, with relatively insufficient testing on high school students. This study aims to construct a main effect model of "family economic capital → academic motivation" and introduce family social capital as a moderating variable to further examine gender differences in moderating effects, in order to enrich the social explanatory framework of learning motivation and provide more targeted empirical support for educational equity and family education policies.

3 Research Methods

3.1 Research Design

This study employed a questionnaire survey method, targeting high school students in my country, particularly those in grades 10 and 11, to explore the impact of family economic capital on learning motivation, with a focus on the moderating role of family social capital. The scales used were based on Bourdieu's (1986)^[1] and Coleman's (1988)^[2] capital theories, as well as self-determination theory [3], and data was collected through questionnaires.

3.2 Research Subjects and Sample

This study targeted grade 10 and 11 students from various regions across China (including urban and rural areas). A total of 319 questionnaires were collected, and after removing invalid questionnaires, 319 valid samples were obtained. Specific background characteristics of the respondents are shown in Table 1.

Table 1 Background Characteristics of Respondents

				n=319			
Characteristics	Category	Number	Percentage	Characteristics	Category	Number	Percentage
Gender	Male	157	49.22%	Single Child	Yes	181	56.74%
	Female	162	50.78%		No	138	43.26%
Grade	Grade 11	134	42.01%	Family Structure	Two-Parent Family	231	72.41%
	Grade 12	185	57.99%		Single-Parent Family	48	15.05%
Place of Residence	Urban	178	55.80%		Reconstituted Family	14	4.39%
	Rural	141	44.20%		Non-Parental Guardian Family	26	8.15%

3.3 Research Tools

3.3.1 Family Economic Capital Scale

This study divides it into two dimensions: material resources (learning equipment, housing, learning space, etc.) and educational investment (educational expenditure, learning materials, etc.). It has six items and uses a five-point Likert scale. Higher scores indicate higher family economic investment. The scale showed good reliability (Cronbach's $\alpha = 0.856$).

3.3.2 Family Social Capital Scale

Referring to Coleman's (1988) structural and relational social capital, this study divides the scale into two dimensions: structural social capital (parental social relationships, etc.) and relational social capital (family support, trust, etc.). It has eight items and also uses a five-point scale. The scale showed excellent reliability (Cronbach's $\alpha = 0.896$).

3.3.3 Learning Motivation Scale

This study used a simplified version of the AMS scale, divided into three dimensions: intrinsic motivation (9 items, Cronbach's $\alpha = 0.898$), extrinsic motivation (9 items, Cronbach's $\alpha = 0.913$), and no motivation (3 items, Cronbach's $\alpha = 0.853$). All scales passed the KMO and Bartlett tests.

3.4 Data Analysis Methods

This study used SPSS 26.0 for analysis, including: reliability and validity tests (Cronbach's α coefficient, KMO test, Bartlett's test of sphericity), descriptive statistics and correlation analysis (mean, standard deviation, Pearson correlation), multiple regression analysis (to test the predictive effect of family economic capital on the three types of learning motivation), moderating effect analysis (using PROCESS Model 1 to test the moderating effect of family social capital), and gender-grouped moderating effect (moderating effect tests were conducted separately for men and women to compare gender differences). The significance criterion for all tests was set at $p < 0.05$.

4 Results

4.1 Reliability and validity analysis

All core variables showed good internal consistency: the Cronbach's α coefficients for family economic capital, family social capital, intrinsic motivation, extrinsic motivation, and no motivation were 0.877, 0.896, 0.898, 0.913, and 0.853, respectively, all above 0.80, which is within the acceptable range. Furthermore, the results also show that the KMO values were between 0.896 and 0.916, and all were statistically significant ($p < 0.01$) according to Bartlett's test of sphericity, indicating that the scale is suitable for factor analysis. The cumulative variance explained by each variable exceeded 60%, indicating good construct validity. (See Table 2)

Table 2 Reliability and Validity Analysis(n=319)

Variables	Items	Reliability Analysis			Validity Analysis			Cumulative variance percentage
		CITI	Cronbach's α (Item Deleted)	Cronbach's α	KMO and Bartlett	Rotation factor loading coefficient	Percentage of variance	
Family economic capital	FEC1	0.686	0.856	0.877	KMO=0.916; Bartlett's sphericity test: Approximate chi-square = 1166.013, df=28, Sig.=0.000	0.775	15.270%	60.56%
	FEC2	0.713	0.851			0.788		
	FEC3	0.646	0.862			0.729		
	FEC4	0.661	0.860			0.734		
	FEC5	0.707	0.852			0.776		
	FEC6	0.684	0.856			0.769		
Family social capital	FSC1	0.676	0.883	0.896		0.745	14.451%	
	FSC2	0.715	0.879			0.773		
	FSC3	0.680	0.883			0.745		
	FSC4	0.644	0.886			0.716		
	FSC5	0.637	0.887			0.703		
	FSC6	0.643	0.886			0.727		
	FSC7	0.709	0.880			0.769		
	FSC8	0.713	0.879			0.773		
Intrinsic motivation	IM1	0.704	0.884	0.898		0.757	13.578%	
	IM2	0.701	0.885			0.751		
	IM3	0.669	0.887			0.713		
	IM4	0.584	0.893			0.669		
	IM5	0.693	0.885			0.725		
	IM6	0.628	0.890			0.672		
	IM7	0.631	0.890			0.657		
	IM8	0.693	0.885			0.709		
	IM9	0.680	0.886			0.722		
Extrinsic motivation	EM1	0.726	0.901	0.913		0.750	10.828%	
	EM2	0.715	0.902		0.738			
	EM3	0.723	0.901		0.740			
	EM4	0.657	0.906		0.688			
	EM5	0.701	0.903		0.744			
	EM6	0.723	0.901		0.752			
	EM7	0.677	0.904		0.718			
	EM8	0.663	0.906		0.693			
	EM9	0.694	0.903		0.728			
Amotivation	A1	0.774	0.748	0.853	0.856	6.437%		
	A2	0.696	0.821		0.791			
	A3	0.705	0.814		0.811			

4.2 Correlation Analysis

The correlation analysis results show that household economic capital and household social capital are significantly positively correlated ($r=0.193$, $p<0.001$). Household economic capital is significantly positively correlated with intrinsic motivation ($r=0.339$, $p<0.01$), extrinsic motivation ($r=0.329$, $p<0.01$), and amotivation ($r=0.297$). Household social capital is also significantly positively correlated with all three types of learning motivation ($r=0.258-0.322$, $p<0.001$). These results indicate a stable linear relationship among the variables. (See Table 3)

Table 3 Correlation Analysis(n=319)

	M	SD	(1)	(2)	(3)	(4)	(5)
(1)Family economic capital	3.301	0.908	1.000				
(2)Family social capital	3.217	0.943	0.193***	1			
(3)Intrinsic motivation	3.455	0.867	0.339***	0.275***	1		
(4)Extrinsic motivation	3.454	0.869	0.329***	0.322***	0.472***	1	
(5)Amotivation	3.230	0.926	0.297***	0.258***	0.349***	0.401***	1

*** $p<0.001$.

4.3 Main Effect Test

After controlling for gender, age, place of residence, whether an individual is an only child, and family structure, the multivariate analysis showed that household economic capital had a significant impact on all three types of learning motivation ($p<0.001$). In the multiple regression model, household economic capital significantly and positively predicted intrinsic motivation ($\beta =0.350$, $p<0.001$) and extrinsic motivation ($\beta =0.343$, $p<0.001$), while negatively predicting no motivation ($\beta=-0.331$, $p<0.001$). (See Table 4)

Table 4 Main Effect Test of Household Economic Capital on Learning Motivation(n=319)

	Model1:IM				Model2:EM				Model3:A			
	B	SE	t	Sig.	B	SE	t	Sig.	B	SE	t	Sig.
(Contant)	1.927	0.321	5.997	0.000	2.287	0.321	7.115	0.000	2.823	0.343	8.221	0.000
FEC	0.350	0.047	7.463	0.000	0.343	0.047	7.315	0.000	0.331	0.050	6.598	0.000
Gender	0.021	0.086	0.240	0.810	-0.024	0.086	-0.283	0.777	-0.082	0.091	-0.894	0.372
Grade	-0.380	0.087	-4.365	0.000	-0.469	0.087	-5.386	0.000	-0.629	0.093	-6.764	0.000
Residence	0.079	0.086	0.918	0.359	-0.005	0.086	-0.063	0.950	-0.134	0.092	-1.453	0.147
Only child	0.546	0.086	6.345	0.000	0.484	0.086	5.623	0.000	0.413	0.092	4.492	0.000
Family structure	0.031	0.047	0.674	0.501	0.085	0.047	1.830	0.068	0.023	0.050	0.460	0.646
R	0.258				0.261				0.258			
R-sq	0.244				0.247				0.244			
F	18.075(Sig.=0.000)				18.356(Sig.=0.000)				18.080(Sig.=0.000)			

4.4 The Moderating Effect of Household Social Capital

In the overall moderating model of PROCESS Model 1, after controlling for relevant variables, household social capital showed a significant positive moderating effect on the "household economic capital → intrinsic motivation" path (interaction term B = 0.236, p < 0.001), meaning that the higher the household social capital, the stronger the promoting effect of household economic capital on intrinsic motivation. However, in the extrinsic motivation model, the interaction term was not significant (B = 0.032, p = 0.522), indicating that household social capital did not play a moderating role in the path between household economic capital and extrinsic motivation. In the amotivated model, household social capital showed a significant negative moderating effect (B = -0.212, p < 0.001), meaning that higher household social capital may weaken the positive predictive effect of household economic capital on amotivated behavior. (See Table 5)

Table 5 Test of the moderating effect of household social capital

n=319

	Model4:IM				Model5:EM				Model6:A			
	B	SE	t	Sig.	B	SE	t	Sig.	B	SE	t	Sig.
(Contant)	2.934	0.266	11.021	0.000	3.343	0.272	12.292	0.000	3.951	0.289	13.666	0.000
FEC	0.303	0.045	6.718	0.000	0.295	0.046	6.404	0.000	0.301	0.049	6.152	0.000
FSC	0.192	0.043	4.435	0.000	0.230	0.044	5.215	0.000	0.179	0.047	3.810	0.000
FSC*IM	0.236	0.049	4.802	0.000								
FSC*EM					0.032	0.050	0.641	0.522				
FSC*A									-0.212	0.053	-3.976	0.000
Gender	0.056	0.081	0.689	0.491	0.004	0.083	0.053	0.958	-0.072	0.088	-0.824	0.410
Grade	-0.372	0.082	-4.533	0.000	-0.453	0.084	-5.407	0.000	-0.611	0.089	-6.861	0.000
Residence	0.086	0.081	1.061	0.290	0.012	0.083	0.144	0.885	-0.112	0.088	-1.269	0.205
Only child	0.584	0.082	7.155	0.000	0.479	0.083	5.745	0.000	0.361	0.089	4.078	0.000
Family structure	0.017	0.044	0.381	0.704	0.075	0.045	1.667	0.096	0.022	0.048	0.452	0.652
R	0.589				0.567				0.570			
R-sq	0.346				0.321				0.325			
F	20.531(Sig.=0.000)				18.328(Sig.=0.000)				18.681(Sig.=0.000)			

FEC=Family economic capital;FSC=Family social capital;IM=Intrinsic motivation;EM=Extrinsic motivation;A=Amotivation

4.5 Moderation Effect of Gender Differences

4.5.1 Male Group

For males, family social capital significantly enhanced the positive effect of family economic capital on intrinsic motivation (B=0.154, p=0.023) and significantly weakened the positive effect of family economic capital on amotivation (B=-0.224, p=0.004). However, the moderating effect of family social capital in the extrinsic motivation model was not significant (B=-0.026, p=0.718). (See Table 6)

Table 6 Test of the Moderating Effect in the Male Group(n=319)

	Model7:IM				Model8:EM				Model9:A			
	B	SE	t	Sig.	B	SE	t	Sig.	B	SE	t	Sig.
(Contant)	2.546	0.320	7.948	0.000	3.485	0.341	10.213	0.000	4.298	0.363	11.838	0.000
FEC	0.291	0.061	4.742	0.000	0.343	0.065	5.249	0.000	0.404	0.069	5.823	0.000
FSC	0.298	0.062	4.823	0.000	0.259	0.066	3.936	0.000	0.184	0.070	2.626	0.010
FSC*IM	0.154	0.067	2.295	0.023								
FSC*EM					-0.026	0.071	-0.362	0.718				
FSC*A									-0.224	0.076	-2.954	0.004
Grade	-0.198	0.116	-1.710	0.089	-0.515	0.123	-4.181	0.000	-0.659	0.131	-5.022	0.000
Residence	0.204	0.113	1.812	0.072	0.006	0.120	0.052	0.958	-0.141	0.128	-1.103	0.272
Only child	0.623	0.112	5.542	0.000	0.434	0.120	3.622	0.000	0.231	0.127	1.811	0.072
Family structure	-0.024	0.058	-0.415	0.679	0.109	0.062	1.757	0.081	-0.053	0.066	-0.803	0.423
R	0.632				0.615				0.622			
R-sq	0.399				0.378				0.386			
F	14.121(Sig.=0.000)				12.923(Sig.=0.000)				13.406(Sig.=0.000)			

FEC=Family economic capital;FSC=Family social capital;IM=Intrinsic motivation;EM=Extrinsic motivation;A=Amotivation;

4.5.2 Female Group

For females, the moderating effect of family social capital on the intrinsic motivation path was more significant ($B = 0.310$, $p < 0.001$), and it also showed a significant negative moderating effect in the amotivated model ($B = -0.191$, $p = 0.011$), but did not show a significant moderating effect on the extrinsic motivation path ($B = 0.092$, $p = 0.200$). (See Table 7)

Table 7 Test of the Moderating Effect in the Female Group(n=319)

	Model10:IM				Model11:EM				Model12:A			
	B	SE	t	Sig.	B	SE	t	Sig.	B	SE	t	Sig.
(Contant)	3.448	0.309	11.170	0.000	3.204	0.313	10.226	0.000	3.526	0.324	10.871	0.000
FEC	0.285	0.066	4.291	0.000	0.241	0.067	3.575	0.000	0.165	0.070	2.374	0.019
FSC	0.115	0.060	1.902	0.059	0.199	0.061	3.257	0.001	0.193	0.063	3.049	0.003
FSC*IM	0.310	0.070	4.406	0.000								
FSC*EM					0.092	0.071	1.288	0.200				
FSC*A									-0.191	0.074	-2.576	0.011
Grade	-0.549	0.115	-4.781	0.000	-0.380	0.117	-3.262	0.001	-0.590	0.121	-4.893	0.000
Residence	-0.023	0.117	-0.195	0.846	0.020	0.119	0.170	0.865	-0.150	0.123	-1.225	0.222
Only child	0.538	0.117	4.596	0.000	0.544	0.119	4.583	0.000	0.477	0.123	3.879	0.000
Family structure	0.068	0.067	1.009	0.315	0.024	0.068	0.354	0.724	0.115	0.070	1.628	0.106
R		0.596				0.528				0.561		
R-sq		0.355				0.278				0.314		
F		12.090(Sig.=0.000)				8.488(Sig.=0.000)				10.092(Sig.=0.000)		

FEC=Family economic capital;FSC=Family social capital;IM=Intrinsic motivation;EM=Extrinsic motivation;A=Amotivation

5 Discussion

This study primarily explores the main effect pathway of family economic capital on learning motivation among high school students, especially those in grades 10 and 11, as well as the moderating effect of family social capital, and further investigates gender differences. Overall, the findings are largely consistent with existing literature.

Firstly, family economic capital significantly influences students' three types of learning motivation: higher family economic capital leads to higher levels of intrinsic and extrinsic motivation and lower levels of amotivation. Better family economic capital provides students with ample learning resources (such as electronic devices, learning materials, etc.) and a quiet and comfortable learning environment, and also supports extracurricular activities, all of which encourage greater engagement and interest in learning. Conversely, poor family economic capital may present real-world obstacles, potentially causing anxiety due to family financial pressure, leading to a lack of motivation and a higher likelihood of amotivation. This finding is largely consistent with the conclusions of numerous domestic and international studies on the impact of family resources on student learning performance^[5,6].

Secondly, the moderating role of family social capital in the relationship between family economic capital and learning motivation varies across the three types of learning motivation. Regarding intrinsic motivation, family social capital plays a promoting role. A child with better family social capital, such as higher parent-child interaction and social support, will further translate material resources into autonomy and learning interest. Students, feeling understood and supported by their families, will more actively utilize these resources for learning, thus enhancing intrinsic motivation. Regarding apathy, family social capital acts as a buffer. In families with weaker economic conditions, higher social capital can, to some extent, compensate for the adverse effects of economic hardship. This indicates that emotional support, social trust, and professional resources can reduce students' sense of meaninglessness in learning, thus preventing them from falling into learning burnout due to economic constraints. Family social capital does not show a significant moderating role in extrinsic motivation. This may be because extrinsic motivation is more influenced by external factors, such as school evaluation and academic pressure, leaving less room for family social networks to play a role in this regard.

Furthermore, certain patterns emerge regarding the moderating effects between genders. In the intrinsic motivation model, girls exhibit a more pronounced moderating effect, suggesting that they are more likely to benefit from family relationships, social support, and trust, thus enhancing their learning interest. In the amotivationless model, boys show a significant buffering effect, indicating that they may rely more on parental advice, interpersonal relationships, and other structural family resources when under pressure, thereby reducing feelings of "give up." In the extrinsic motivation model, there is no significant difference between boys and girls, suggesting that the sources of this motivation are relatively consistent, possibly including academic requirements, competitive pressure, etc.

Finally, the results of controlling for variables also offer some insights. Only children demonstrate positive performance across all three types of learning motivation, possibly due to concentrated family resources, high family expectations, and parents investing more time and money. However, as age increases and pressure intensifies, from the first to the second year of high school, both intrinsic and extrinsic motivation tend to decline, while amotivation increases.

In summary, this study reveals the moderating role of family social capital in family economic capital and learning motivation, and details gender differences. It not only enriches the theoretical explanation of family social capital and

family economic capital in learning motivation, but also provides a foundation and reference for how to effectively utilize family resources to enhance high school students' learning motivation in practice.

6 Conclusions

The findings of this study offer several insights: ① In family education, parents can focus more on guiding the interaction between family economic capital and social capital, paying attention not only to material input but also to strengthening parent-child communication, enhancing emotional support and family trust, and creating a positive family atmosphere. For families with only one child, parents can appropriately guide their children to build peer relationships and social experiences to avoid over-reliance on family resources. ② Based on the differences in the moderating effects between boys and girls, further targeted measures can be taken, such as utilizing family social capital (e.g., trust and support between families, social relationships, interpersonal relationships, etc.) to promote girls' intrinsic motivation and alleviate boys' amotivational states. ③ For students from economically disadvantaged families, education policies can provide educational resource compensation (such as free learning materials, extracurricular tutoring subsidies, etc.) to alleviate differences in learning motivation caused by insufficient economic capital. Corresponding family education guidance courses can also be offered to help parents better promote their children's motivational development.

However, this study still has some limitations: limited sample size (limited sample size, insufficient control variables, etc.), measurement method bias (potential subjective bias from questionnaires), and a lack of detailed analysis of the dimensions of social capital, failing to consider other possible mediating or moderating variables. Future research could further explore these limitations.

Reference

- [1] Bourdieu P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). Greenwood Press.
- [2] Coleman J. S. (1988). Social capital in the creation of human capital. *American Journal of Sociology*, 94(Supplement), S95–S120.
- [3] Deci E. L., & Ryan R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268.
- [4] Vallerand R. J., Pelletier L. G., Blais M. R., Brière N. M., Senécal C., & Vallières E. F. (1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and Psychological Measurement*, 52(4), 1003–1017.
- [5] Sirin S. R. (2005). Socioeconomic status and academic achievement: A meta-analytic review of research. *Review of Educational Research*, 75(3), 417–453.
- [6] Sun M., & Wang C. (2021). The effects of family capital on children's educational attainment. *Population Journal*, 43(5), 99–112.
- [7] SHI Bao-guo, SHEN Ji-liang. The Relationships among Family SES, Intelligence, Intrinsic Motivation and Creativity[J]. *Psychological Development and Education*, 2007, 23(1): 30-34.
- [8] Lin N. (1999). Building a network theory of social capital. *Connections*, 22(1), 28–51.
- [9] Sheng B. (2005). Social capital in education. *Educational Science*, 21(3), 1–5.
- [10] Li WU, Yuanxiang GUO. The Association Between Parental Autonomy Support and Learning Engagement of Senior High School Students: The Roles of Intentional Self-Regulation and School Connectedness. *Studies of Psychology and Behavior*[J], 2024, 22(1): 64-70.
- [11] Adhikari T., & Chalise S. (2024). Gender differences in academic motivation and classroom engagement among university students in Kathmandu. *Journal of Education and Research*, 14(2), 45–60.
- [12] Mwangi C. W. (2020). Gender differences in academic motivation among public secondary schools' students in Nairobi County, Kenya. *African Journal of Educational Studies*, 12(1), 89–102.
- [13] Lam S.-F., Jimerson S., Kikas E., Cefai C., Veiga F., & Allik J., et al. (2016). Gender differences in motivation, engagement, and achievement are related to students' perceptions of peer—but not teacher or parent—attitudes toward school. *Learning and Individual Differences*, 52, 42–51.
- [14] Kyewski E., & Krämer N. C. (2023). Gender differences in the motivational profile of undergraduate students in light of self-determination theory: Evidence from an online learning setting. *Educational Psychology*, 43(7), 854–872.
- [15] Chi L., & Xin Z. (2006). Measurement of learning motivation among college students and its relationship with self-efficacy. *Psychological Development and Education*, 22(2), 64–70.